Far Western New South Wales occurrence of a koala *Phascolarctos cinereus*

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There have been occasional reports to the National Parks and Wildlife Service of koalas *Phascolarctos cinereus* on the western plains of New South Wales (Lunney *et al.* 1990; Ellis and Etheridge 1993). These have been concentrated around Ivanhoe in the centre of the western plains and the upper Darling River in the vicinity of Bourke (Fig. 1). There have also been sightings further downstream along the Darling towards Louth, but the exact details of time and place were not reported (Jo Smith, NPWS, pers. comm.). These indicate that koalas are capable of using at least part of the Darling River corridor for dispersal or even for colonization.

In early July 1994 a koala was reported from 30 km north of Wilcannia. It was found crossing the Wilcannia to Wanaaring road in a chenopod shrubland, with eucalypt woodland within 1 km to the west and 2 km to the east. Suspecting the animal had been dumped on the roadside, a local grazier took the animal back to his homestead and contacted the NPWS. He provided it with water and Red Box *Eucalyptus intertexta* foliage until the animal was inspected. It drank the water and ate freely of the leaves provided.

Inspection of the koala revealed it was a male weighing 8 kg. This would make it about two years old based on Victorian animals according to Lee and Martin (1988), but northern animals weigh less. The lack of scarring on the face and tears on the ears supported the idea that it was a young animal but possibly slightly older than an estimate on Victorian morphometrics would give. It was placid when approached or lightly touched, but reacted aggressively with vocalizations and scratching when attempts were made to capture it. The grazier who had picked it up from the road sported several gashes from his efforts to capture the animal. Based on the estimated age and sex of the animal it was concluded that it was a dispersing juvenile and there was insufficient reason to believe that the animal had been transported to the area by people. Consequently it was released on the same drainage line that passed near to where it was originally found. Upon release the animal readily climbed to the upper canopy of a eucalypt where it rested. No further observations of the animal have been reported by the grazier.

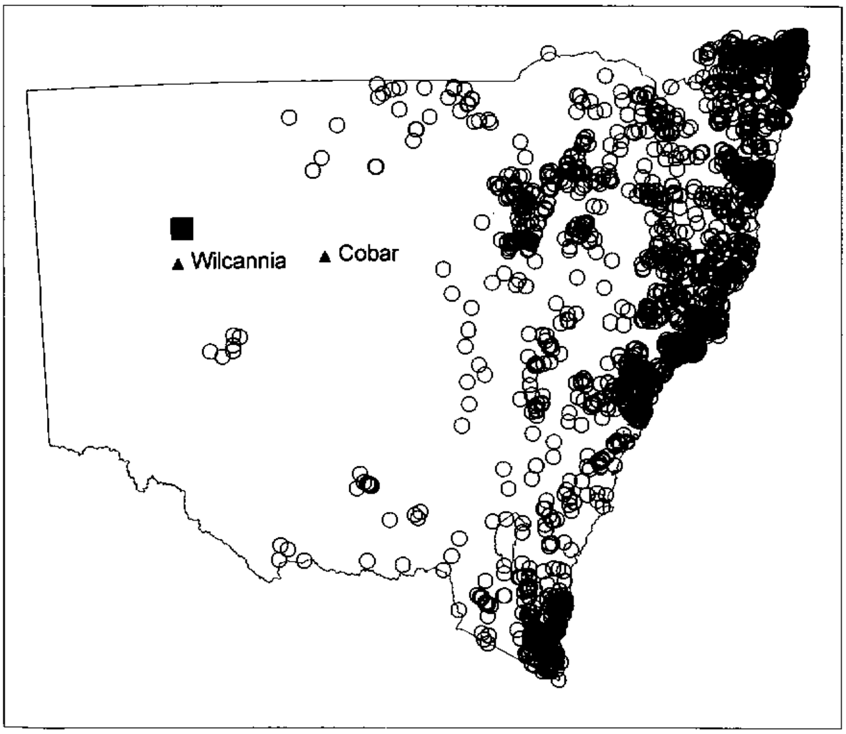

Figure 1. Records held by the (NSW) National Parks and Wildlife Service of koals in New South Wales (open circles) with the koala reported in the note shown as a solid square.

This koala was found 180 km from the animals previously reported to the NPWS. Being a juvenile male it may have travelled widely in its dispersal phase while trying to establish a new territory. It seems likely that koalas can traverse much of the Darling River floodplain since the three dominant eucalypts (*Eucalyptus camadulensis, E. largiflorens* and *E. microtheca*) are all known food trees for the species (Lee and Martin 1988; Lunney *et al.* 1990). The lack of regular reports from the far western parts of the floodplains indicates that any populations in the area are only small or short lived. However, it must be remembered that the area is lightly populated and many graziers may not be inclined to report koalas in case it affects their land use options, i.e., prevents clearing, or attracts unwanted tourists to their properties. Consequently, the possibility of a sparse permanent population of koalas in the most favourable areas along the central and lower Darling floodplains cannot be discounted.

REFERENCES

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BOOK REVIEWS — BOOK REVIEWS

"Gillnets and Cetaceans", Report of the International Whaling Commission, Special Issue 15, 1994.

Soon, humanity will drive a cetacean species to extinction for the first time. The extirpation of the the last few Baiji *Lipotes vexillifer* in the Yangtze River, and Vaquita *Phocoena sinus* in the Gulf of California will be due to incidental catches in fishing gear. Although whaling and its associated politics occupy the public's attention, probably the most important cetacean conservation issue now is deaths in fishing gear. In 1990, the International Whaling Commission organized a workshop to assess the extent of cetacean mortality in passive fishing nets and traps. One result is the publication of this book — a big, depressing book. Six hundred and tweny-nine A4 pages containg 52 papers and two comprehensive reports, most documenting apparently unsustainable takes of cetaceans.

The book starts with two reports, one from the Workshop and the other a report by the IWC Scientific Committee to the United Nations Conference on Environment and Development. These two reports provide a potted overview of the extent of the problem of cetacean entanglements to 1992, and complement each other. At the end of the book, a postscript chapter updates the situation between 1992 and 1994. The rest of the book is divided into eight sections, mostly by region. The penultimate section is on causes and solutions.

One obvious message of the research presented in this book is that cetaceans are either in trouble from incidental takes, or they are being taken in numbers that suggest that problems exist. There are big gaps too, exemplified by the lack of papers documenting from much of south-east Asia. And it is clear that science can not provide all the answers to solving this issue. Even when entanglements are monitored, we generally do not know the status of cetacean populations, or the sustainability of mortality due to fishing gear. And clearly, it is extremely unlikely (given research techniques and funding available) that we can ever know.

Then there are the technological fixes. Papers in the "Causes and Solutions" section address the issues associated with making nets more detectable by cetaceans. There has been considerable research into the development of passive or active acoustic technologies to enhance net detectability. This section of the book includes excellent papers by Cockcroft, Goodson *et al.*, Dawson and Au on both the theory and practice of testing these technologies. Dawson and Cockcroft, working from different perspectives, both conclude that the only answer is the removal of gillnets. There is no experimental evidence that attempts to enhance net detectability actually work to significantly reduce cetacean mortality.

There is a little good news. The high seas driftnets discussed in some papers (e.g., Nagao, Watanabe) were shut down in the years between the workshop and the production of this volume, thanks to international public pressure. Still, with 35 gillnets per kilometre of the Indian coast (Lal Mohan), and more than 3 500 000 gillnets used in China (Kaiya and Xiaoyan), some problems appear insurmountable.

The book is well produced, most of the papers are good science, and the coverage is international and comprehensive. Bill Perrin, Greg Donovan and Jay Barlow have done an excellent job with the editing. The general quality of the book is as we have come to expect from IWC Special Issues, well bound and with few typographical errors.

Anyone with an interest in cetacean conservation or marine biodiversity in general should at least read the reports at the start of this volume. The book's size and comprehensive coverage probably excludes it from being the sort of volume that more people will read right through, but it is excellent source material. Perhaps if members of NGOs interested in cetacean conservation read the first two reports, they might place more emphasis on working to reduce cetacean entanglements. It is the main game for cetacean conservation.

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